

# the condition of education 2006



## INDICATOR 40

### Variations in Expenditures per Student

The indicator and corresponding tables are taken directly from *The Condition of Education 2006*. Therefore, the page numbers may not be sequential.

Additional information about the survey data and supplementary notes can be found in the full report. For a copy of *The Condition of Education 2006*, visit the NCES website (<http://nces.ed.gov/pubsearch/pubsinfo.sap?pubid=2006071>) or contact ED PUBs at 1-877-4ED-PUBS.

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# Finance

## Variations in Expenditures per Student

*Between 1989–90 and 2002–03, differences between states accounted for a greater proportion of the variation in instructional expenditures per student among unified public school districts than differences within states.*

Although there are a number of measures that can be used to measure the variation in instructional expenditures across school districts, the Theil coefficient was selected because it provides a national measure of differences in instructional expenditures per student that can be decomposed into separate components to measure school district-level variations both between states and within states. A coefficient of zero indicates that there is no variation, and the amount of variation present increases as the Theil coefficient increases in size.

Analysis of instructional expenditures data for grades K through 12 in unified public school districts shows that there is variation across school districts and that the majority of this variation is due to differences between states, rather than differences within states (see supplemental table 40-1). Analysis of these data over time shows that the size of the variation decreased between 1989–90 and 1997–98, and although the variation has increased in size since the late 1990s, it remains lower than that registered in the early 1990s. As was the

case for the total variation, when the variations due to between- and within-state differences are considered separately, both components showed decreases between 1989–90 and 1997–98. However, since 1997–98 the trends have changed. The between-state component increased, while the within-state component remained largely unchanged, with the between-state variation accounting for 74 percent of the total disparity in 1997–98 and 78 percent in 2002–03. Hence, the increase in the total variation between 1997–98 and 2002–03 was largely due to increases in the variation across states.

Changes in the variation in instructional expenditures over time may reflect differences across school districts in the trends in the amount of services or goods purchased, such as the number of classroom teachers hired. However, they may also be attributed to differences in the trends in the costs of items purchased, such as teacher salaries. The variations in the trends in the amounts of services or goods purchased may, in part, reflect various state litigation and school finance reform efforts.

<sup>1</sup> The Theil coefficient measures dispersion for groups within a set (i.e., states within the country) and indicates relative dispersion and any variations that may exist among them. See supplemental note 11 for more information.

NOTE: Public elementary and secondary unified districts are those districts that serve both elementary and secondary grades. In 2002, approximately 72 percent of all school districts were unified school districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "Longitudinal School District Fiscal-Non-Fiscal File, School Year 1989–90 to 1999–2000, Fiscal Year (FY) 1990 to 2000" and "School District Finance Survey (Form F-33)," 2000–01 to 2002–03, previously unpublished tabulation (October 2005).



FOR MORE INFORMATION:

Supplemental Notes 3, 11

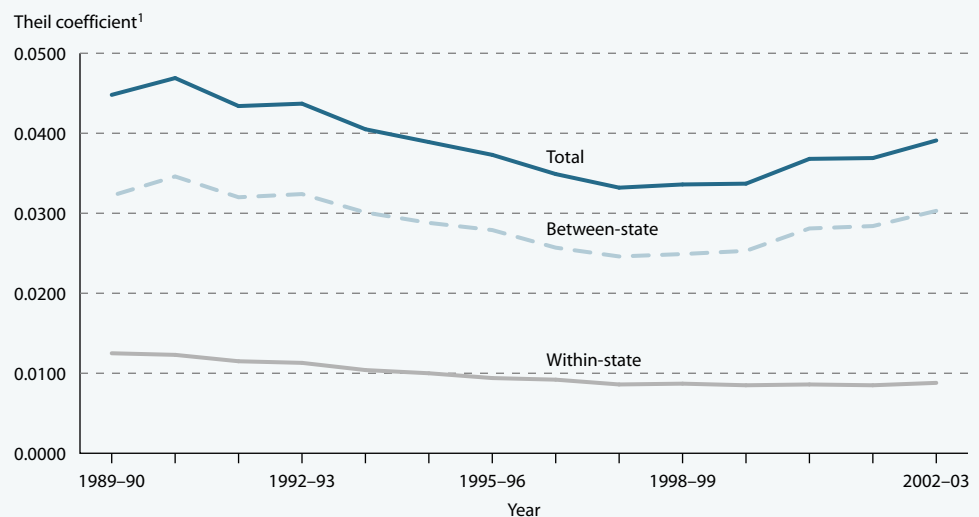
Supplemental Table 40-1

NCES 2000-020

NCES 2001-323

Murray, Evans, and Schwab  
1998

**VARIATIONS IN EXPENDITURES:** The variation in instructional expenditures in unified public elementary and secondary school districts, by source of the variation: 1989–90 to 2002–03



## Variations in Expenditures per Student

**Table 40-1.** The variation and percentage distribution of the variation in instructional expenditures in unified public elementary and secondary school districts, by source of the variation: 1989–90 to 2002–03

Year	Theil coefficient <sup>1</sup>	Between-state component	Within-state component	Percentage distribution		
				Theil coefficient <sup>1</sup>	Between-state component	Within-state component
1989–90	0.0448	0.0322	0.0125	100.0	72.0	28.0
1990–91	0.0469	0.0346	0.0123	100.0	73.7	26.3
1991–92	0.0434	0.0320	0.0115	100.0	73.6	26.4
1992–93	0.0437	0.0324	0.0113	100.0	74.2	25.8
1993–94	0.0405	0.0301	0.0104	100.0	74.3	25.7
1994–95	0.0389	0.0288	0.0100	100.0	74.2	25.8
1995–96	0.0373	0.0279	0.0094	100.0	74.8	25.2
1996–97	0.0349	0.0257	0.0092	100.0	73.7	26.3
1997–98	0.0332	0.0246	0.0086	100.0	74.0	26.0
1998–99	0.0336	0.0249	0.0087	100.0	74.2	25.8
1999–2000	0.0337	0.0253	0.0085	100.0	74.9	25.1
2000–01	0.0368	0.0281	0.0086	100.0	76.5	23.5
2001–02	0.0369	0.0284	0.0085	100.0	76.9	23.1
2002–03	0.0391	0.0303	0.0088	100.0	77.6	22.4

<sup>1</sup>The Theil coefficient measures dispersion for groups within a set (i.e., states within the country) and indicates relative dispersion and any variations that may exist among them. It can be decomposed into components measuring between-state and within-state variation in expenditures per student. It has a minimum value of zero and increasing values indicate increases in the variation. See *supplemental note 11* for more information.

NOTE: Detail may not sum to totals because of rounding. Public elementary and secondary unified districts are those districts that serve both elementary and secondary grades. In 2002, approximately 72 percent of all school districts were unified school districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "Longitudinal School District Fiscal–Non-Fiscal File, School Year 1989–90 to 1999–2000, Fiscal Year (FY) 1990 to 2000" and "School District Finance Survey (Form F-33)," 2000–01 to 2002–03, previously unpublished tabulation (October 2005).